PATENT COOPERATION TREATE' PCT/PTO 19 JUL 2004 From the INTERNATIONAL PRELIM **EXAMINING AUTHORITY** FIVED **PCT** 10.12.03 Jyväskylän Patenttitoimisto Jyva. Alentikolimisto RITTEN OPINION Berggren Oy Ab Ohjelmakaari 1 (PCT Rule 66) FIN-40500 JYVÄSKYLÄ Date of mailing 0 8 -12- 2003 (day/month/year) Applicant's or agent's file reference REPLY DUE 504 within 60 days BP105358 from the above date of mailing International application No. International filing date (day/month/year) Priority date (day/month/year) PCT/FI03/00033 17-01-2003 18-01-2002 International Patent Classification (IPC) or both national classification and IPC7 G06F 3/033 Applicant Nokia Corporation et al. This written opinion is the (first, etc.) drawn by this International Preliminary Examining Authority. first This opinion contains indications relating to the following items: Basis of the report II **Priority** Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Lack of unity of invention Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement Certain documents cited VII Certain defects in the international application VIII Certain observations on the international application 3. The applicant is hereby invited to reply to this opinion. See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d). How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9. Also For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis. For an informal communication with the examiner, see Rule 66.6. If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

Name and mailing address of the IPEA/SE		Authorized officer
Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. 08-667 72 88 Form PCT/IPEA/408 (cover the cover the	Telex 17978 PATOREG-S	JAN SILFVERLING /LR Telephone No. 08-782 25 00

18-05-2004

The final date by which the international preliminary

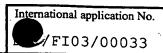
examination report must be established according to Rule 69.2 is:



International application No.	
F F103/00033	

I.	Bas	sis of the opinion	· ·
1.	With	regard to the elements of the international application:*	
	\boxtimes	the international application as originally filed	
		the description:	
	<u> </u>	pages	an aminimally filed
		pages	, as originally filed
		pages, filed with the letter of	, filed with the demand
		the claims:	
	<u> </u>	pages	, as originally filed
		pages , as amended (together with	th any statement) under article 19
		pages, and the desired with	, filed with the demand
		pages, filed with the letter of	,
		the drawings:	
		pages	, as originally filed
• .		pages	, filed with the demand
	<u></u>	pages, filed with the letter of	
		the sequence listing part of the description:	
		pages	, as originally filed
		pages	, filed with the demand
		regard to the language, all the elements marked above were available or furnished to this Au	
3. V d	With redrawn	the language of a translation furnished for the purposes of international search (under Rule the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary exam or 55.3). regard to any nucleotide and/or amino acid sequence disclosed in the international application on the basis of the sequence listing: contained in the international application in printed form. filled together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond to international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence furnished. The amendments have resulted in the cancellation of: the description, pages the claims, Nos. the drawings, sheet/fig This opinion has been drawn as if (some of) the amendments had not been made, since they beyond the disclosure on filed and disclosure	nination (under Rules 55.2 and/ ation, the written opinion was the disclosure in the written sequence listing has
* 1 i	Replac	beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2 (c)). seement sheets which have been furnished to the receiving Office in response to an invitation opinion as "originally filed".	





V .	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty	, inventive step or in	dustrial applicability
	citations and explanations supporting such statement	:-	: · · · · · · · · · · · · · · · · · · ·

 Stater 	nent
----------------------------	------

Novelty (N)	Claims Claims	2-3,11,17-18 1,4-10,12-16,19-28	_ YES
Inventive step (IS)	Claims Claims	1-28	YES NO
Industrial applicability (IA)	Claims Claims	1-28	- - YES NO

2. Citations and explanations

Document cited in the International Search Report:

D1: US 6211856 D2: US 6073036

D3: JP 09 091486 abstract

The problem to be solved by the invention is how to make inputs from a keyboard shown at a small touch screen in a mobile device.

D1, which is considered to be the most relevant document relates to a mobile device with a touch screen displaying a collection of icons at a scale in which the individual functions of each icon is recognizable, but too small to access individual features of the function. When touching an area of the screen including an icon, the screen provides a zoomed version of that area so that the user can select a desired feature.

D2 shows a mobile phone with a touch screen with an input area and an output area. On the input area of the screen is a plurality of symbols displayed. When touching the symbol area the touched portion of the display is magnified and a symbol can be selected. The selected symbol is then shown in the output are:

D3 is showing the state of the art.

The invention according to claims 1, 4-10, 12-16 and 19-28 is considered to lack novelty in view of D1.

. . . / . . .

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Box V

The invention according to claims 2-3 and 17-18 relates to manipulating the input and output area sizes. D1 is not showing that there is an output area, but in the case of a PDA (see figure 1 A-C) there must be an output area not shown. However, from D2 (see figure5D) there is known a display with an input and an output area. To make it possible to manipulate the size of these areas must be an obvious measure for a person skilled in the art and therefore, the invention according to claims 2-3 and 17-18 has no inventive step.

The invention according claim 11 is considered to be obvious for a person skilled in the art knowing D1.



PATENTII TAVARAMERKIT HYÖDYLUSYYSMALLIT

> PATENTS TRADEMARKS DESIGNS UTILITY MODELS

6 February 2004

TELEFAX 3 pp. Original by mail FAX: 990-46-8-667 7288

Patent- och registreringsverket Valhallavägen 136 P.O. Box 5055 S-102 42 STOCKHOLM Sweden

Authorized Officer: Jan Silfverling

Our ref: BP105358/TN/SPO

REPLY TO WRITTEN OPINION

INTERNATIONAL PATENT APPLICATION PCT/FI03/00033

APPLICANT: NOKIA CORPORATION

DUE DATE: 6 FEBRUARY 2004

On account of the Written Opinion issued on 8.12.2003 we submit the following:

The publication D1 (US 6,211,856 B1) discloses only an input portion of a touch sensitive display. Although figures 1A-C of D1 disclose a personal digital assistant (PDA) device, only input portion of the PDA is mentioned in D1. We agree with the examiner, that in PDA there probably is an output portion, but in D1 the output portion is absent. An output portion is left without any indication in D1, and it is of no importance to the solution presented in D1. The presented solution relates only to an input portion, and especially functions to be controlled through it.

D1 discloses a touch-sensitive display, a graphical user interface (GUI), and a controller for enabling a user to control the system through a touch screen functionality of the GUI [paragraph 2, lines 16-19]. The present application, on the other hand, is built on a basic assumption that a touch screen is used both for input and output [page 3, lines 4-5]. These input and output portions are clearly stated in the independent claims 1 and 16 of the application: "...characterized in that the touch sensitive display is divided into adjustable input and output portions (200)..." Since the output portion is totally absent in disclosure of D1, the invention of the present application is novel in view of publication D1.

Jyväskylän Patenttitoimisto Berggren Oy Ab Ohjelmakaari 1 Ohielmakaari 1 FIN-40500 Jyväskylä FINLAND

Käyntiosoite • Office: Puh. • Tel.: Jyväskylä

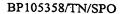
Nat. (014) 445 1415 Int. +358 14 445 1415 http://www.berggren.fi Fax (014) 445 1416 Int. +358 14 445 1416

E-mail: email.box@berggren.fi

Pankit • Bankers: NORDEA 157330-15411 **SWIFT NDEAFIHH** SAMP0 800017-90104 SAMPO USD 800060-40136442 SWIFT **PSPBFIHH**

Yhtiö • Company: 80.802 krnro Trade Reg. No. 80.802 0107002-7 VAT FI01070027 Kotipaikka Helsinki

Pääkonttori • Head office: Berggren Oy Ab Jaakonkatu 3A FIN-00100 Helsinki FINLAND





As the examiner points out, publication D2 (US 6,073,036) discloses input and output portions. Since the invention of the present application starts and is based on the idea of dividing touch sensitive display into input and output portions, publication D2 represents the closest prior art. However, output portion of D2 does not correspond to output portion presented in the present application, since there are substantial differences between these two. In D2 an output portion is only mentioned i.e. existing, whereas the present application, as stated previously, is built on a basic assumption that a touch screen is used both for input and output [page 3, lines 4-5; claims 1 and 16]. Further the D2 states in paragraph 10, lines 31-38: "... it should be realized that not all of the display 20 need be touch sensitive, or operated in a touch-sensitive manner. By example, a portion of the display 20 may be used in a conventional fashion for displaying user-selected symbols,..., while the remainder of the display 20 is operated as the user input device in accordance with this invention." Thus the output portion in D2 is determined to be a conventional output mean, which is kept separate from the inventive input portion of D2. Even if the output and input portions of D2 would be implemented in the same display unit, the previous quotation of D2 unambiguously states that the part of the display used as an output portion need not be touch sensitive, or operate in a touch sensitive manner. Thus the input portion of D2 is determined to be touch sensitive and a separate output portion can be implemented differently. This strongly implies that these portions are separate, independent portions, which are implemented and treated as single, independent blocks. Further it is clearly and unambiguously stated, that the invention of D2 relates to input portion, and the inventive input portion of D2 can be used together with conventional output portions. The conventional use of display for displaying items in D2 leads away from the invention of the application, which starts by a step of dividing the touch sensitive screen into adjustable input and output portions [independent claims 1 and 16].

The examiner states, that there must be an output area in PDA of D1. The fact that a PDA usually includes an output area, does not prove, or even imply, that the input area would be combined with the output solution presented in D2. On the contrary, we are in the opinion, that a skilled person would have, by knowing the teachings of D1 and D2, implemented the output portion as a separate functioning block, from the inventive input portion, since separate output and input means are commonly used in the state of the art in the field of small mobile devices. Without a hindsight of the present invention a skilled person would not have came to a technical solution, nor achieved technical advantages disclosed in the invention of the present application.

The invention presented and claimed in the present application is based on the idea of dividing the touch sensitive screen into adjustable input and output portions. This starting with dividing the area of the touch sensitive screen is inventive in view of teachings of D1 and D2, and makes the solution of the application more versatile and applicable to many different purposes. The size of the portions can be application-specific, when the dimensions of the portions



are defined by an application. Typically the size and type of a character set presented in an input portion defines size of the input portion, and consequently size of an output portion, as presented in last paragraph of page 6. Sizes of portions can be user-specifically adjustable, as presented in page 8, lines 6-7. This inventive idea has the advantage that sizes of input and output portions, and the relationship between their dimensions, can be adjusted. This idea of adjustable input and output portions makes the invention useful and applicable for many different purposes, uses and applications. The portions of display can be optimized to serve the respective purpose the best way possible. For example an output portion is advantageously maximized in order to see as much text as possible simultaneously. Or, when user wants to write, it is advantageous to minimize the output portion and maximize the input portion in order to present a character set of an input portion as wide as possible. This adjustability makes the presented interface user-friendly and convenient to handle, and widens the range of applications that are adaptable to a small device.

Since solutions or inventive ideas of publications D1 and D2 do not relate to output portion, we are strongly in the opinion that the invention of the present application is inventive. The advantages achieved make the present invention more versatile and adabtable. Not only magnification of input portion items, but at first adjusting appropriate sizes for input and output portions makes the invention more usable and convenient for many different purposes. This is a clear advantage compared to prior art solutions, thus making the invention not obvious to a skilled person in view of D1 and/or D2.

JYVÄSKYLÄN PATENTTITOIMISTO BERGGREN OY AB

Terhi Nykänen

Jen Nylian

Patent Attorney